

## OPEN UNEMPLOYMENT IN SOUTH KALIMANTAN: CAN SCHOOL PARTICIPATION AND WORKFORCE RATES AFFECT IT?

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### **Abstract**

*Unemployment is created as a result of the increase in job vacancies being lower than the increase in the workforce, resulting in a large number of unemployed workers in the economy. This study aims to analyze the regression of school participation rates, workforce, and open unemployment in South Kalimantan. The research method used is quantitative with secondary data for the period 2017-2022. The data is processed using Eviews 12 to conduct classical assumption tests and multiple regression tests. The research findings show that the school participation rate and workforce do not have a significant effect on open unemployment in South Kalimantan Province from the period 2017-2022, either partially or simultaneously. This finding contributes to deepening insight into the factors that influence unemployment cannot always be linked to school participation rates and the workforce.*

**Keywords:** *Unemployment, School Participation Rate, Workforce*

### **Abstrak**

*Pengangguran tercipta sebagai akibat pertambahan lowongan pekerjaan yang lebih rendah dari pertambahan tenaga kerja, akibatnya dalam perekonomian banyak jumlah tenaga kerja yang tidak bekerja. Penelitian ini bertujuan untuk menganalisis regresi terhadap angka partisipasi sekolah, angkatan kerja, dan pengangguran terbuka di Kalimantan Selatan. Metode penelitian yang digunakan adalah kuantitatif dengan data sekunder periode 2017-2022. Data diolah menggunakan Eviews 12 untuk melakukan uji asumsi, uji statistik regresi berganda, uji T, dan Uji F. Temuan penelitian menunjukkan angka partisipasi sekolah (APS) dan angkatan kerja (AK) tidak berpengaruh secara signifikan terhadap pengangguran terbuka di Provinsi Kalimantan Selatan dari periode 2017-2022, baik secara parsial maupun simultan. Temuan ini berkontribusi dalam memperdalam wawasan tentang faktor yang mempengaruhi pengangguran tidak bisa selalu dihubungkan dengan angka partisipasi sekolah dan angkatan kerja.*

**Kata Kunci:** *Pengangguran, Angka Partisipasi Sekolah, Angkatan Kerja*

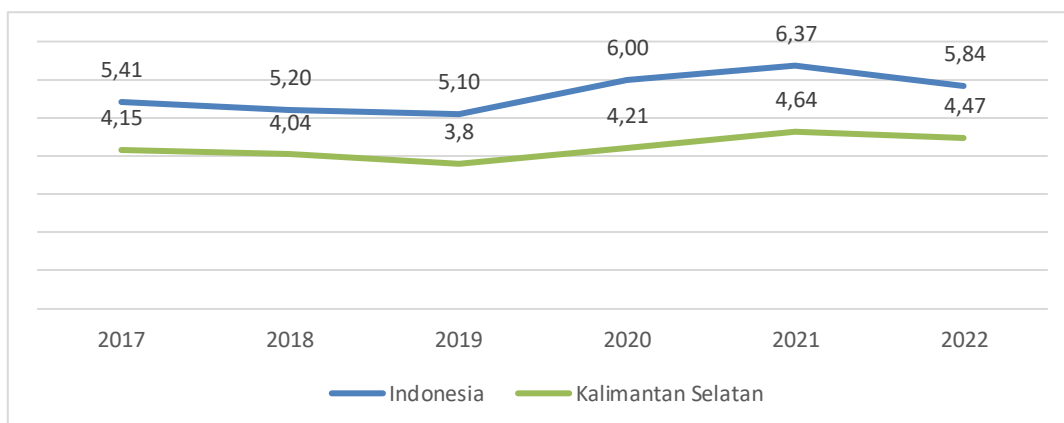
## **INTRODUCTION**

Economic development in developing countries, including Indonesia, generally faces similar challenges, such as poverty, economic inequality, high population growth, and unemployment (Suriati, 2021). Indonesia itself ranks 59th

globally and ranks 10th among developing countries for the problem of unemployment. Despite having great labor market potential, rapid population growth is a challenge because it is not in line with the quality of human resources needed in the labor market. As a result, unemployment remains a major problem in economic development that needs to be addressed immediately, considering its impact on the social and economic stability of a country (Egeten et al., 2023).

Unemployment has a serious impact on people's lives. A person who does not work must still meet the needs of his life which has the potential to encourage criminal acts such as theft, assault, and even murder. More broadly, the high unemployment rate poses a risk to social life (Egeten et al., 2023). In Indonesia, the open unemployment rate at the end of 2020 reached 6%, decreasing to 5.84% in 2022. However, conditions in South Kalimantan show the opposite trend. The unemployment rate of 4.21 in 2020 increased to 4.47% in 2022 (BPS, 2021).

**Graph 1. Open Unemployment Percentage in Indonesia and South Kalimantan 2017-2022**

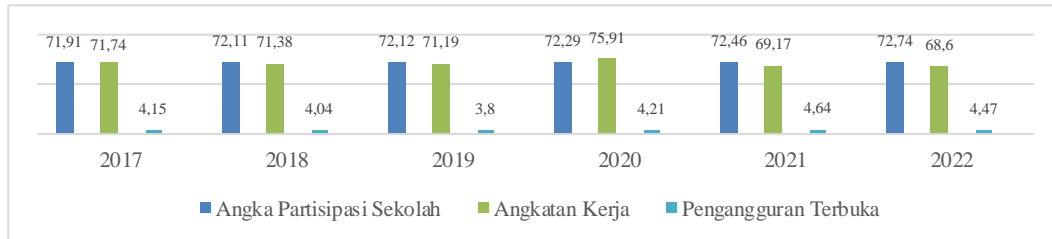


Source: BPS, 2024

In fact, in the last five years, South Kalimantan has experienced an increase in human resource development and shown stable economic growth. This province is one of the regions with the lowest poverty rate in Indonesia. Despite this, the unemployment rate in South Kalimantan continues to increase every year, placing it in the 22nd position in the national ranking.

This raises questions about the factors that cause the upward trend in unemployment, especially with the school participation rate (APS) and the number of the workforce.

**Graph 2. Percentage of School, Workforce, and Unemployment Participation Rate in South Kalimantan in 2017-2022**



Source: BPS, 2024

Data from the Central Statistics Agency (BPS) shows that the school participation rate in South Kalimantan has been on an upward trend in the last six years. The average APS increased from 71.91% in 2017 to 72.74% in 2022. Meanwhile, the number of the workforce fluctuated with a significant increase in 2020 but declined again in 2021 and 2022. On the other hand, the open unemployment rate also showed a similar pattern, with declines in 2018 and 2019, spikes in 2020 and 2021, and a slight decline in 2022.

There was a difference of opinion in previous studies regarding the influence of school participation rates and the workforce on the unemployment rate. According to Rumbiak (2023), the school participation rate does not have a direct relationship with the unemployment rate (Rumbiak et al., 2023). However, Prakoso's research (2020) shows that APS can affect the unemployment rate, especially in the educated unemployment category (Prakoso, t.t.) (Prakoso, t.t.). On the other hand, Suriati's (2021) research concluded that the number of workforce did not have a significant effect on unemployment (Suriati, 2021). On the other hand, research by Pasuria and Triwahyuningtyas (2022) states that the workforce influences unemployment in Indonesia (Pasuria & Triwahyuningtyas, 2022).

The difference in the results of these studies raises further questions about the relationship between the school participation rate and the workforce and the open unemployment rate in South Kalimantan. Therefore, this study aims to analyze in more depth how these two variables affect unemployment in this province in the period 2017-2022. Through understanding the factors that contribute to employment, it is hoped that this research can make an academic contribution to regional economic studies and become the basis for the formulation of more appropriate and data-based labor policies.

## LITERATURE REVIEW

### Open Unemployment

Unemployment is a condition in which a person wants to work at the prevailing wage level but is unable to get a job (Yunusova et al., 2021). Open unemployment occurs when the number of workers looking for work exceeds the availability of jobs, whether it is residents who are looking for work, preparing for business, or have not started working. There are several factors that cause unemployment, including rapid population growth, limited resources, low productivity and lack of technological innovation (Wiennata, 2014). Population growth that exceeds food supplies leads to competition in finding work.

Malthus' theory states that unemployment occurs due to defeat in such competition, where education and skills are important factors. So that Malthus' theory clearly alludes to the ability seen from education and competition in finding a job (Alma, 2019). In addition, Keynes in his theory explained that unemployment is caused by low aggregate demand and lack of government intervention in stabilizing the economy through fiscal (taxes and government spending) and monetary (money and interest rates) policies (Soesastro, 2005). High unemployment reflects economic instability and magnifies individual challenges in meeting the needs of life (Suharnanik, 2023).

#### School Participation Rate

Skills and education are the main factors that affect the unemployment rate. Individuals with adequate skills and education are more easily accepted into the workforce, while those who do not have them tend to have difficulty finding employment (Suharnanik, 2023). Education is a process that aims to change attitudes and behaviors through conscious teaching and training (Sasongko, 2018). The success of the quality of education can be seen from the School Participation Rate (APS), which is the percentage of the school-age population who attend formal education. APS is an important indicator in assessing the ability of educational institutions to serve the community and determine the level of educational accessibility (Aprilia & Cerya, 2023; Rumbiak et al., 2023).

There is a close relationship between the school participation rate (APS) and the open unemployment rate. Higher education allows individuals to develop skills needed in the world of work, increase productivity, and expand information networks to find work. According to Malthus's theory, low productivity due to limited access to education has an impact on the difficulty of competing in the job market. In addition, the lack of technological innovation encourages people to see education as the main avenue to increase future job opportunities.

#### **Workforce**

The workforce includes people aged 15-64 who are working, looking for a job, or preparing for a new venture. The number of the workforce depends on the composition of the population and economic activity. The more labor available, the greater the potential for economic growth, but the unemployed working-age population is still counted as part of the workforce (Egeten et al., 2023). In

macroeconomics, the employment problem is one of the factors that affect unemployment in the labor market, both in terms of wage levels, labor policies, and labor availability (Suharnanik, 2023). The workforce plays a role as a labor supply. However, if the growth in labor supply is not matched by the availability of jobs, the unemployment rate will increase.

According to Malthus's theory, rapid population growth and low productivity are the main factors affecting unemployment. If the workforce increases but productivity remains low, then competition in the job market becomes difficult, leading to increased unemployment. Therefore, improving the skills of the workforce and creating adequate jobs are essential to address unemployment and encourage economic growth.

## METHOD

This study was conducted using a quantitative approach to analyze the rate of work participation, workforce, and open unemployment in South Kalimantan Province for the 2017-2022 period. The data were obtained by the documentation method sourced from the Central Statistics Agency. Meanwhile, the object of this study is open unemployment (Y) as a bound variable, while the object of this research is the school participation rate (X1) and the workforce (X2) as independent variables. Hypothesis testing was carried out with eviews 12 through a series of classical assumption tests, multiple linear regression statistical tests, T tests, and F tests.

**Table 1. Research Data**

Year	School Participation Rate	Workforce	Unemployment
2017	71.91	71.74	4.15
2018	72.11	71.38	4.04
2019	72.12	71.19	3.8
2020	72.29	75.91	4.21
2021	72.46	69.17	4.64
2022	72.74	68.6	4.47

Source: BPS, 2024

## RESULT

The results of the classical assumption test were carried out with a series of tests, including normality test, linearity test, heteroscedasticity test, and autocorrelation test. The results of the classic assumption test are summarized in the following table:

**Table 2. Results of the Classic Assumption Test**

Test	Requirement	Prob	Information
Normality	Prob. Kolmogorov > 0,05	0,7669	Qualify
Linearity	Prob. F-Statistic > 0,05	0,9607	Qualify
Heteroscedasticity	Prob. Chi-Square > 0,05	0,5019	Qualify
Autocorelation	Prob. Chi-Square > 0,05	0,6819	Qualify

Source: primary data processed with Eviews 12, 2024

Table 2 presents a summary of the results of the classical assumption test and explains that the data in this study meet the requirements and can be continued for regression model analysis.

**Table 3. Multiple Regression Test Results**

	Coefisien	Std. Error	t-Statistics	Prob
C	-42,0357	35,2989	-1,2191	0,3099
APS	0,6673	0,4623	1,4432	0,2447
AK	-0,0137	0,0528	-0,2588	0,8125
R-Squared	0,5118			
F-Statistic	1,5730			
Prob (F-Statistic)	0,3410			

Source: primary data processed with Eviews 12, 2024

Table 3 presents the results of the regression test which is formulated as  $Y = -42,0357 + 0,6673APS - 0,0137AK + e$ . Based on this equation, it can be concluded that if the school participation rate (APS) and workforce (AK) are zero, then the open unemployment value (Y) is predicted to be -42,0357. In addition, if the school participation rate increases by 1%, then open unemployment will increase by 0,6673. Conversely, if the workforce increases by 1%, then open unemployment will decrease by 0,0137.

Table 2 also shows that the partial relationship of each independent variable to the dependent variable can be seen from the T test of the t-statistical value, through the determination of the T-table at the error rate ( $\alpha$ ) of 5% and the degree of freedom (df)  $n-k-3=3$  is 3.18245. The t-count value of the variable of the single defeat participation number (APS) is less than the t-table ( $1,4432 < 3,1825$ ) and the probability value is more than 0,05 ( $0,2447 > 0,05$ ). This means that the variable of the school participation rate partially has no effect on unemployment. Meanwhile,

the t-count value of the workforce variable (AK) is less than the t-table ( $-0,2588 < 3,1824$ ) and the probability value is more than 0,05 ( $0,8125 > 0,05$ ). This means that the workforce variable has no effect on unemployment.

The value of F-statistic or F-count is 1,5730 and the F of the table at the error rate ( $\alpha$ ) is 5% and  $df_1 = 2$  and  $df_2 = 3$  ( $n-k = 16 - 3 = 3$ ) is 5,4624. The value states that the f-count is smaller than the f-table, meaning that the variables of the school and workforce participation rates together have no effect on open unemployment.

The R-Squared value is 0.5118 which means the influence of the independent variable (x) of the school and workforce participation rate on the dependent variable (y), namely open unemployment of 51.19% and the remaining 48.81% is influenced by other variables outside the study.

## **DISCUSSION**

This study aims to find out whether the School and Workforce Participation Rate affects Open Unemployment in South Kalimantan for the period 2017 – 2022. The results of the statistical analysis showed that both variables did not have a significant influence on the open unemployment rate in South Kalimantan.

The probability value for verifiable School Participation Rate is 0.2447, which is higher than the significance level of 0.05. This means that APS does not have a significant effect on open unemployment in South Kalimantan. This finding is in line with previous research conducted in Mimika Regency (Rumbiak et al., 2023), which also did not find a significant relationship between School Participation Rate and unemployment.

However, this result contradicts the findings of a study by Prakoso which states that school participation rates are one of the important factors affecting unemployment (RA Prakoso, 2020). In Keynesian theory, unemployment is influenced by the lack of aggregate demand and the role of the government in stabilizing the economy. Keynes did not directly mention how education affects unemployment, although the skills taught in educational institutions often do not match the needs of the labor market (Rosul, 2024)

One explanation for these findings is that despite high school participation, skills acquired through formal education may not be relevant or appropriate to the

needs of the industry in South Kalimantan. This causes education graduates to not be able to easily enter the job market, which in turn affects the unemployment rate.

The results of the analysis for the Workforce variable showed a probability value of 0.8125, which is also greater than 0.05, which means that the Workforce does not have a significant effect on the open unemployment rate in South Kalimantan. This finding is in line with the research of Anggoro & Soesatyo (2015) in the city of Surabaya in the city of Surabaya, which states that although the workforce is large, it does not have a direct effect on unemployment. This is because economic sectors such as trade, services, and finance are better able to absorb labor, while other sectors may be limited in terms of employment opportunities. However, this finding contradicts research by Pasuria and Triwahyuningtyas (2022) which found that rapid workforce growth without the addition of new jobs leads to an increase in the number of unemployed every year (Pasuria & Triwahyuningtyas, 2022)

In addition, although there is no direct influence of the workforce on unemployment, another phenomenon that needs to be noted is that a large workforce can open up opportunities for small businesses or entrepreneurs, especially with the support of technology and online marketing (Novitasari, 2022) Thus, while the workforce may not directly affect unemployment, other factors such as skills, experience, and government policy support also play a role in reducing the unemployment rate.

Overall, the results of this study show that the school and workforce participation rate in South Kalimantan in the period 2017–2022 does not have a significant effect on open unemployment. However, it is important to note that unemployment is a complex and multidimensional problem (Ramadhani & Dahliana, 2022) Various other factors, such as government policies, economic cycles, and the compatibility between education and the job market, also play a large role in influencing the unemployment rate (Adewi & Azhari, 2022)

It is important to develop more targeted policies, which not only focus on improving School Participation Rates and Job Quotas, but also improve the quality of education relevant to industry needs and create more jobs in emerging sectors. In addition, policies that support entrepreneurship and small business development

can also be one of the solutions to reduce unemployment, especially among the young workforce (Kesumadewi & Aprilyani, 2024)

This research also has limitations in terms of variable measurement and data coverage. Therefore, further research using a more holistic approach, including factors such as regional economic policies, vocational education, and local labor market conditions, is highly recommended to get a more complete picture of unemployment in South Kalimantan.

## CONCLUSION

This study indicates that the School Participation Rate (APS) and Workforce (AK) did not significantly affect open unemployment in South Kalimantan in the period 2017–2022. However, this does not mean that both factors are not important. Unemployment is a complex problem that is affected by many things, including the quality of education, the suitability of skills to the job market, economic conditions, and entrepreneurial support. Therefore, efforts to address unemployment require a comprehensive approach and consider a variety of other factors beyond school and workforce participation rates. Further research with a wider scope of data and more in-depth analysis methods is needed for a better understanding of the dynamics of unemployment in South Kalimantan.

## REFERENCE

- Adewi, M., & Azhari, A. (2022). Pengaruh Investasi Dan Kesempatan Kerja Terhadap Pengangguran Terbuka Di Kabupaten Bojonegoro Tahun 2013-2020: *Jurnal Ekonomi Manajemen Dan Sosial*, 5(1), Article 1. <https://doi.org/10.56071/jemes.v5i1.294>
- Alma, L. R. (2019). *Ilmu Kependudukan*. Wineka Media.
- Aprilia, O., & Cerya, E. (2023). Pengaruh Angka Partisipasi Sekolah (APS) Dan Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) Pada Kabupaten Di Provinsi Sumatera Barat. *Jurnal Salingka Nagari*, 2(1), Article 1. <https://doi.org/10.24036/jsn.v2i1.110>
- Egeten, M. G., Kawung, G. M. V., & Tolosang, K. D. (2023). Analisis Pengaruh Tingkat Pendidikan dan Jumlah Angkatan Kerja Terhadap Tingkat Pengangguran Terbuka di Kota-Kota yang ada di Provinsi Sulawesi Utara. *Jurnal Berkala Ilmiah Efisiensi*, 23(3), Article 3.

- Kesumadewi, E., & Aprilyani, A. (2024). Mengatasi Pengangguran Melalui Peningkatan Kewirausahaan dengan Program Tenaga Kerja Mandiri. *Journal of Macroeconomics and Social Development*, 1(4), 1–15. <https://doi.org/10.47134/jmsd.v1i4.360>
- Novitasari, A. T. (2022). Kontribusi UMKM terhadap Pertumbuhan Ekonomi Era Digitalisasi Melalui Peran Pemerintah. *JABE (Journal of Applied Business and Economic)*, 9(2), Article 2. <https://doi.org/10.30998/jabe.v9i2.13703>
- Pasuria, S., & Triwahyuningtyas, N. (2022). Pengaruh Angkatan Kerja, Pendidikan, Upah Minimum, dan Produk Domestik Bruto terhadap Pengangguran di Indonesia. *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan*, 1(6), Article 6. <https://doi.org/10.54443/sibatik.v1i6.94>
- Prakoso, R. A. (t.t.). Analisis Faktor-faktor yang Mempengaruhi Pengangguran Terdidik di Pulau Jawa Tahun 2010-2018. *Jurnal Ilmiah Mahasiswa FEB*, 9(1).
- RA Prakoso. (2020). Analisis Faktor-faktor yang Mempengaruhi Pengangguran... - Google Scholar. *Jurnal Ilmiah Mahasiswa FEB*, 9(1), 1–12.
- Ramadhani, M., & Dahliana, D. (2022). Dampak Pengangguran dan Penyaluran Dana Zakat Infak Sedekah terhadap Kemiskinan di Provinsi Kalimantan Selatan. *Ecoplan*, 5(2), Article 2. <https://doi.org/10.20527/ecoplan.v5i2.604>
- Rosul, R. D. (2024). Pemikiran J.M. Keynes, Kritikan Keynes pada Teori Klasik dan Pentingnya Peran Pemerintah Pada Perekonomian. *JISIPOL | Jurnal Ilmu Sosial Dan Ilmu Politik*, 8(1). <https://ejournal.unibba.ac.id/index.php/jisipol/article/view/1377>
- Rumbiak, M. M. L., Kawung, G. M. V., & Tumangkeng, S. Y. L. (2023). Pengaruh Jumlah Penduduk, Angka Partisipasi Sekolah (APS) dan PDRB Terhadap Pengangguran di Kabupaten Mimika. *Jurnal Berkala Ilmiah Efisiensi*, 23(7), Article 7.
- Sasongko, D. G. S. (2018). *Pengertian Pendidikan*. <https://doi.org/10.13140/RG.2.2.25251.78880>
- Soesastro, H. (2005). *Pemikiran dan Permasalahan Ekonomi di Indonesia dalam Setengah Abad Terakhir Jilid 1 (1945-1959)*. Kanisius.
- Suharnanik. (2023). *Buku Ajar Masalah Ketenagakerjaan dan Pengangguran*. UWKS PRESS.
- Suriati, S. (2021). Pengaruh Jumlah Angkatan Kerja, Upah Minimum dan Rata-rata Lama Sekolah Terhadap Tingkat Pengangguran di Kabupaten/Kota Provinsi Kalimantan Barat. *Jurnal Pembangunan Dan Pemerataan*, 10(03), Article 03. <https://jurnal.untan.ac.id/index.php/jcc/article/view/47103>
- Wiennata, P. P. (2014). *Faktor-faktor yang Mempengaruhi Pertumbuhan Ekonomi pada Negara G-20 (Pembuktian Grease The Wheels Hypothesis)*. Skripsi

Universitas Diponegoro. <https://123dok.com/document/y65npv7z-mempengaruhi-pertumbuhan-pembuktian-hypothesis-diponegoro-university-institutional-repository.html>

Yunusova, A., Daval, A., Balkaya, D., Turgut, E., Aktekin, E. D., Coskun, G., Budak, H., Uzboyali, K., Yildirim, Z., Aykoc, R., & Degerli, N. (2021). *Discussions Between Economic Agents: Panel Data Analysis* (O. Ucan, Ed.). IKSAD Publishung House.